

The listing of claims provided below will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) An isolated peptide comprising the peptide sequence of formula (I),

Xaa-Cys-Xab-Cys-Xac-Cys-Xad-Cys-Xae-Cys-Xaf-Cys-Xag (SEQ ID NO:39)

(I)

in which:

Xaa represents an N-terminal NH₂- (amino) moiety or a peptide fragment consisting of from 1 to 10 amino acid residues, at least one of which is a basic amino acid residue;

Xab represents 10 amino acid residues;

Xac represents 3 amino acid residues, comprising at least one acidic amino acid residue;

Xad represents the peptide sequence, -Lys-Arg-Arg-Gly-Tyr-Lys-Gly-Gly-His- (SEQ ID NO:41);

Xae represents the peptide sequence –Gly-Xae’- [[Ans]] Asn - (SEQ ID NO:44), in which Xae’ represents 5 amino acid residues;

Xaf represents the amino acid -Trp-; and

Xag represents a C-terminal -COOH (carboxyl) moiety or a peptide fragment consisting of from 1 to 2 amino acid residues, wherein said peptide has an antifungal activity.

2. (Cancelled)
3. (Previously presented) The peptide of Claim 1, wherein Xad comprises 1, 2, 3 or 4 basic amino acids.
4. (Previously presented) The peptide of Claim 1, wherein the basic amino acids are selected from the group consisting of lysine, arginine and homoarginine.
5. (Cancelled)
6. (Cancelled)
7. (Cancelled)
8. (Previously presented) The peptide of Claim 1, wherein Xac represents the peptide sequence -Asn-Xac'-Xac"-, in which Xac' represents 1 amino acid, and Xac" represents 1 acidic amino acid.
9. (Previously presented) The peptide of Claim 1, characterized in that the acidic amino acids are chosen from glutamic acid (Glu) or aspartic acid (Asp).
10. (Previously presented) The peptide of Claim 1, wherein Xac represents the peptide sequence -Asn-Gly-Glu-.
11. (Previously presented) The peptide of Claim 1, wherein Xaa represents the peptide sequence Xaa'-Gly-Xaa"- (SEQ ID NO:42), in which Xaa' represents an N-terminal NH₂- (amino) moiety or a peptide fragment consisting of from 1 to 8 amino acid residues, and Xaa" represents one acidic amino acid; and/or

Xab represents the peptide sequence –Val-Xab'-Asp- (SEQ ID NO:43) in

which Xab' represents from 0 to 8 amino acid residues; and/or

Xag represents the peptide sequence –Glu-Xag' (SEQ ID NO:45), in which

Xag' represents a C-terminal –COOH (carboxyl) moiety or 1 amino acid residue.

12. (Previously presented) The peptide of Claim 1, wherein

Xaa represents the peptide sequence NH₂-Asp-Lys-Leu-Ile-Gly-Ser- (SEQ ID NO:46), in which NH₂- represents an N-terminal NH₂- (amino) moiety; and/or

Xab represents the peptide sequence –Val-Trp-Gly-Ala-Val-Asn-Tyr-Thr-Ser-Asp- (SEQ ID NO:47); and/or

Xae represents the peptide sequence -Gly-Ser-Phe-Ala-Asn-Val-Asn (SEQ ID NO:48); and/or

Xag represents the peptide sequence –Glu-Thr-COOH, wherein -COOH represents a C-terminal carboxyl moiety.

13. (Previously presented) The peptide of Claim 1, wherein said peptide has the amino acid sequence encoded by SEQ ID NO:2.

14. (Previously presented) The peptide of Claim 1, wherein said peptide comprises at either of its ends, or at both ends, amino acid residues necessary for its expression and targeting to a specific compartment of the host organism.

15. (Previously presented) The peptide of Claim 1, wherein the cysteine residues of the peptide of formula (I) form at least one intramolecular disulfide bridge.

16. (Previously presented) The peptide of Claim 15, wherein said peptide comprises disulfide bridges established between the first and fourth cysteine residues, the second and fifth cysteine residues, and the third and sixth cysteine residues of the peptide sequence of formula (I).
17. (Previously presented) A fusion peptide comprising the peptide of Claim 1.
18. (Previously presented) The fusion peptide of Claim 17, wherein the peptide comprises a signal peptide or a transit peptide.
19. (Previously presented) The fusion peptide of Claim 18, wherein the transit peptide is selected from the group consisting of the signal peptide encoded by the tobacco PR-1 α gene, the signal peptide present at the N-terminal of the precursor of factor Mat alpha 1, and the signal peptide encoded by the maize polygalacturonase PG1 gene.
20. (Cancelled)
21. (Cancelled)
22. (Previously presented) A composition which comprises the peptide of Claim 1 and an appropriate vehicle.
- 23-45. (Cancelled)
46. (Previously presented) A method of preparing the peptide of Claim 1, comprising culturing a transformed organism that contains a nucleic acid encoding said peptide in an appropriate culture medium; extracting said peptide; and totally or partially purifying said peptide.
47. (Previously presented) The peptide of Claim 1, wherein Xaa represents an N-terminal NH₂- (amino) moiety or from 1 to 6 amino acid residues.

48. (Cancelled)
49. (Cancelled)
50. (Cancelled)
51. (Previously presented) The peptide of Claim 1, wherein Xac comprises one acidic amino acid.
52. (Previously presented) The peptide of Claim 1, wherein Xaa represents the peptide sequence Xaa'-Gly-Xaa"- (SEQ ID NO:42), in which Xaa' represents an N-terminal NH₂- (amino) moiety or a peptide fragment consisting of from 1 to 5 amino acid residues, and Xaa" represents an amino acid selected from the group consisting of Leu, Ile, Val, Pro, Ser and Thr.
53. (Previously presented) The peptide of Claim 1, wherein Xab represents the peptide sequence –Val-Xab'-Asp- (SEQ ID NO:43) in which Xab' represents 8 amino acid residues.
54. (Cancelled)
55. (Previously presented) The peptide of Claim 1, wherein Xag represents the peptide sequence –Glu-Xag' (SEQ ID NO:45), in which Xag' represents a C-terminal –COOH (carboxyl) moiety or one amino acid residue.